

# SEQUENCE LISTING

<110> Brugliera, Filippa  
Tanaka, Yoshikazu  
Mason, John

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Asn Leu Pro Arg Ile Ala Ile Gln Ala Cys Glu Val Asp Gly Tyr Tyr	370		375		380	
Ile Pro Lys Asp Thr Arg Leu Ser Val Asn Ile Trp Ala Ile Gly Arg	385		390		395	400
Asp Pro Ser Val Trp Glu Asn Pro Ser Glu Phe Ser Pro Glu Arg Phe	405		410		415	
Leu Ser Glu Glu Asn Gly Lys Ile Ser Pro Gly Gly Asn Asp Phe Glu	420		425		430	
Leu Ile Pro Phe Gly Ala Gly Arg Arg Ile Cys Ala Gly Thr Arg Met	435		440		445	
Gly Met Val Leu Val Ser Tyr Ile Leu Gly Thr Leu Val His Ser Phe	450		455		460	
Asp Trp Lys Leu Pro Asn Gly Val Ser Glu Ile Asn Met Asp Glu Ser	465		470		475	480
Phe Gly Leu Ala Leu Gln Lys Ala Val Pro Leu Ser Ala Thr Val Ser	485		490		495	
Pro Arg Leu Ala Pro Ser Ala Tyr Val Ile	500		505			

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 <222> (307)..(307)

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cggttggccc ttggtgggcg cctccctct cctaggcgcc atgcctcacg tcgcactagc	180
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cgccaagtac ggtccgaggt ggaagacttt aagaaaattg agcaacctcc acatgctagg	420
cgggaaggcg ttggatgatt gggcaaattg gagggtcacc gagctaggcc acatgcttaa	480
agccatgtgc gaggcgagcc ggtgcgggga gcccggtgtg ctggccgaga tgctcacgta	540
cgccatggcg aacatgatcg gtcaagtgat actcagccgg cgcgtgttcg tgaccaaagg	600
gaccgagtct aacgagttca aagacatggc ggtcgagttg atgacgtccg ccgggtactt	660
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cgacaataca aatggggaga agcttagtat taccaatatc aaagctgtcc ttttgaatct	900
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 <212> PRT  
 <213> viola

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 35 40 45

Leu Gly Ala Met Pro His Val Ala Leu Ala Lys Leu Ala Lys Lys Tyr  
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Gly Pro Ile Met His Leu Lys Met Gly Thr Cys Asp Met Val Val Ala  
 65 70 75 80

Ser Thr Pro Glu Ser Ala Arg Ala Phe Leu Lys Thr Leu Asp Leu Asn  
 85 90 95

Phe Ser Asn Arg Pro Pro Asn Ala Gly Ala Ser His Leu Ala Tyr Gly  
 100 105 110

Ala Gln Asp Leu Val Phe Ala Lys Tyr Gly Pro Arg Trp Lys Thr Leu  
 115 120 125

Arg Lys Leu Ser Asn Leu His Met Leu Gly Gly Lys Ala Leu Asp Asp  
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Trp Ala Asn Val Arg Val Thr Glu Leu Gly His Met Leu Lys Ala Met  
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Cys Glu Ala Ser Arg Cys Gly Glu Pro Val Val Leu Ala Glu Met Leu  
 165 170 175

Thr Tyr Ala Met Ala Asn Met Ile Gly Gln Val Ile Leu Ser Arg Arg  
 180 185 190

Val Phe Val Thr Lys Gly Thr Glu Ser Asn Glu Phe Lys Asp Met Val  
195 200 205

Val Glu Leu Met Thr Ser Ala Gly Tyr Phe Asn Ile Gly Asp Phe Ile  
210 215 220

Pro Ser Ile Ala Trp Met Asp Leu Gln Gly Ile Glu Arg Gly Met Lys  
225 230 235 240

Lys Leu His Thr Lys Phe Asp Val Leu Leu Thr Lys Met Val Lys Glu  
245 250 255

His Arg Ala Thr Ser His Glu Arg Lys Gly Lys Ala Asp Phe Leu Asp  
260 265 270

Val Leu Leu Glu Glu Cys Asp Asn Thr Asn Gly Glu Lys Leu Ser Ile  
275 280 285

Thr Asn Ile Lys Ala Val Leu Leu Asn Leu Phe Thr Ala Gly Thr Asp  
290 295 300

Thr Ser Ser Ser Ile Ile Glu Trp Ala Leu Thr Glu Met Ile Lys Asn  
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Pro Thr Ile Leu Lys Lys Ala Gln Glu Glu Met Asp Arg Val Ile Gly  
325 330 335

Arg Asp Arg Arg Leu Leu Glu Ser Asp Ile Ser Ser Leu Pro Tyr Leu  
340 345 350

Gln Ala Ile Ala Lys Glu Thr Tyr Arg Lys His Pro Ser Thr Pro Leu  
355 360 365

Asn Leu Pro Arg Ile Ala Ile Gln Ala Cys Glu Val Asp Gly Tyr Tyr  
370 375 380

Ile Pro Lys Asp Ala Arg Leu Ser Val Asn Ile Trp Ala Ile Gly Arg  
385 390 395 400

Asp Pro Asn Val Trp Glu Asn Pro Leu Glu Phe Leu Pro Glu Arg Phe  
405 410 415

Leu Ser Glu Glu Asn Gly Lys Ile Asn Pro Gly Gly Asn Asp Phe Lys



420	425	430
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435	440	445
Gly Met Val Leu Val Ser Tyr Ile Leu Gly Thr Leu Val His Ser Phe		
450	455	460
Asp Trp Lys Leu Pro Asn Gly Val Ala Glu Leu Asn Met Asp Glu Ser		
465	470	475
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Phe Gly Leu Ala Leu Gln Lys Ala Val Pro Leu Ser Ala Leu Val Ser		
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Pro Arg Leu Ala Ser Asn Pro Tyr Ala Thr		
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 cgccctagca aaaatggcca aaacttacgg cccgatcatg tacttgaaaa tgggcacagt 240  
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Tyr	Gly	Pro	Lys	Trp	Arg	Leu	Leu	Arg	Lys	Leu	Ser	Ser	Leu	His	Met
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Leu	Gly	Ser	Lys	Ala	Leu	Glu	Glu	Trp	Ala	Asp	Val	Arg	Thr	Ser	Glu
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Val	Gly	His	Met	Leu	Ala	Ala	Met	His	Glu	Ala	Ser	Arg	Leu	Gly	Glu
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Ala	Val	Gly	Leu	Pro	Glu	Met	Leu	Val	Tyr	Ala	Thr	Ala	Asn	Met	Ile
			180					185					190		
Gly	Gln	Val	Ile	Leu	Ser	Arg	Arg	Val	Phe	Val	Thr	Lys	Gly	Lys	Glu
	195						200					205			
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	210					215					220				
Tyr	Phe	Asn	Ile	Gly	Asp	Phe	Ile	Pro	Trp	Leu	Ala	Trp	Met	Asp	Leu
225					230					235					240
Gln	Gly	Ile	Glu	Arg	Gly	Met	Lys	Lys	Leu	His	Lys	Lys	Trp	Asp	Arg
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Leu	Ile	Gly	Lys	Met	Leu	Asp	Asp	Arg	Leu	Lys	Ser	Thr	Tyr	Lys	Arg
			260					265					270		
Asn	Asp	Lys	Pro	Asp	Leu	Leu	Asp	Ser	Leu	Leu	Ala	Asn	His	Asp	Asp
		275					280					285			
Glu	Ser	Lys	Asp	Asp	Asp	Glu	Asp	Cys	Lys	Leu	Thr	Thr	Thr	Asn	Ile
	290					295					300				
Lys	Ala	Leu	Leu	Leu	Asn	Leu	Phe	Thr	Ala	Gly	Thr	Asp	Thr	Ser	Ser
305					310					315					320
Ser	Ile	Ile	Glu	Trp	Ala	Leu	Ala	Glu	Met	Ile	Lys	Asn	Pro	Ser	Ile
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Gln Lys Arg Ala His Gln Glu Met Asp Arg Val Ile Gly Arg Glu Arg  
 340 345 350

Arg Leu Leu Glu Ser Asp Ile Pro Asn Leu Pro Tyr Leu Lys Ala Ile  
 355 360 365

Cys Lys Glu Ala Tyr Arg Lys His Pro Ser Thr Pro Leu Asn Leu Pro  
 370 375 380

Arg Ile Ser Thr Asp Ala Cys Val Val Asp Gly Tyr His Ile Pro Lys  
 385 390 395 400

Asn Thr Arg Leu Ser Val Asn Ile Trp Ala Ile Gly Arg Asp Pro Asp  
 405 410 415

Val Trp Glu Asn Pro Leu Asp Phe Asn Pro Asp Arg Phe Met Ser Gly  
 420 425 430

Leu Gln Gly Ile Glu Pro Gly Gly Asn His Phe Glu Leu Ile Pro Phe  
 435 440 445

Gly Ala Gly Arg Arg Ile Cys Ala Gly Ser Arg Met Gly Ile Val Ile  
 450 455 460

Val Glu Tyr Leu Leu Ala Thr Leu Val His Ser Phe Glu Trp Asp Leu  
 465 470 475 480

Pro Ala Gly Ser Ala Glu Met Asp Met Glu Glu Val Phe Gly Leu Ala  
 485 490 495

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Ser His Cys Tyr Ala Pro Pro Ser  
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<400> 16

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Thr Pro Gly	His Pro Leu Pro	Pro Gly Pro Arg Gly	Phe Pro Val Val
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Gly Ser Leu	Pro Leu Leu Gly	Asp Met Pro His Val	Ala Leu Ala Lys
	50	55	60
Met Ala Lys	Thr Tyr Gly	Pro Ile Met Tyr Leu Lys	Met Gly Thr Val
	65	70	75
Gly Met Val	Val Ala Ser Thr	Pro Asp Ala Ala Arg	Ala Phe Leu Lys
	85	90	95
Thr Gln Asp	Ala Asn Phe Ser Asn	Arg Pro Val Asn Ala	Gly Ala Thr
	100	105	110
Ile Leu Ala	Tyr Asn Ala Gln	Asp Met Val Phe Ala	Pro Tyr Gly Pro
	115	120	125
Lys Trp Arg	Leu Leu Arg Lys	Leu Ser Ser Leu His	Met Leu Gly Ser
	130	135	140
Lys Ala Leu	Glu Glu Trp Ala	Asp Val Arg Thr Ser	Glu Val Gly His
	145	150	155
Met Leu Ala	Ala Met His Glu	Ala Ser Arg Leu Asp	Glu Ala Val Gly
	165	170	175
Leu Pro Glu	Met Leu Val Tyr	Ala Thr Ala Asn Met	Ile Gly Lys Val
	180	185	190
Ile Leu Ser	Arg Arg Val Phe	Val Thr Lys Gly Lys	Glu Met Asn Glu
	195	200	205
Phe Lys Glu	Met Val Val Glu	Leu Met Thr Thr Ala	Gly Tyr Phe Asn
	210	215	220
Ile Gly Asp	Phe Ile Pro Trp	Leu Ala Trp Met Asp	Leu Gln Gly Ile
	225	230	235
			240

Glu Arg Gly Met Lys Lys Leu His Lys Lys Trp Asp Arg Leu Ile Gly  
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 Lys Met Leu Asp Asp Arg Leu Lys Ser Thr Tyr Lys Arg Asn Asp Lys  
 260 265 270  
 Pro Asp Leu Leu Asp Ser Leu Leu Ala Asn His Asp Asp Glu Ser Lys  
 275 280 285  
 Asp Asp Asp Glu Asp Cys Lys Leu Thr Thr Thr Asn Ile Lys Ala Leu  
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 Leu Leu Asn Leu Phe Thr Ala Gly Thr Asp Thr Ser Ser Ser Ile Ile  
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 Ala His Gln Glu Met Asp Arg Val Ile Gly Arg Glu Arg Arg Leu Leu  
 340 345 350  
 Glu Ser Asp Ile Pro Asn Leu Pro Tyr Leu Lys Ala Ile Cys Lys Glu  
 355 360 365  
 Ala Tyr Arg Lys His Pro Ser Thr Pro Leu Asn Leu Pro Arg Ile Ser  
 370 375 380  
 Thr Asp Ala Cys Val Val Asp Gly Tyr His Ile Pro Lys Asn Thr Arg  
 385 390 395 400  
 Leu Ser Val Asn Ile Trp Ala Ile Gly Arg Asp Pro Asp Val Trp Glu  
 405 410 415  
 Asn Pro Leu Asp Phe Asn Pro Asp Arg Phe Met Ser Gly Leu Gln Gly  
 420 425 430  
 Ile Glu Pro Gly Gly Asn His Phe Glu Leu Ile Pro Phe Gly Ala Gly  
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 Arg Arg Ile Cys Ala Gly Ser Arg Met Gly Ile Val Ile Val Glu Tyr  
 450 455 460  
 Leu Leu Ala Thr Leu Val His Ser Phe Glu Trp Asp Leu Pro Ala Gly  
 465 470 475 480

Ser Ala Glu Met Asp Met Glu Glu Val Phe Gly Leu Ala Leu Gln Lys  
485 490 495

Ala Val Pro Leu Ala Ala Arg Leu Thr Pro Arg Leu Pro Ser His Cys  
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Tyr Ala Pro Pro Ser Ile  
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<212> DNA  
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<210> 18
<211> 521
<212> PRT
<213> sollya

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<400> 18

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Pro Phe Leu Tyr Cys Ile Leu Asn Met Arg Ile Leu Leu Asn Arg His
20           25           30

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Pro Arg Ser Leu Pro Pro Gly Pro Arg Pro Trp Pro Ile Val Gly Asn
35           40           45

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Leu Pro His Leu Gly Thr Lys Pro His His Ser Ile Ala Ala Met Ala
50           55           60

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Arg Lys Tyr Gly Pro Leu Leu His Leu Arg Met Gly Ile Val His Val
65           70           75           80

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Val Val Ala Ala Ser Ala Asp Val Ala Ala Gln Phe Leu Lys Asn Asp
85           90           95

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Ala Asn Phe Ser Ser Arg Pro Pro Asn Ser Gly Ala Lys His Met Ala
100          105          110

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Tyr Asn Tyr His Asp Met Val Phe Ala Pro Tyr Gly Pro Arg Trp Arg  
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Met Leu Arg Lys Ile Cys Ala Leu His Ile Phe Ser Ala Lys Ala Leu  
 130 135 140

Asp Asp Phe His Arg Val Arg Glu Glu Glu Val Ala Ile Leu Ala Arg  
 145 150 155 160

Thr Leu Ala His Ala Gly Gln Lys Pro Val Asn Leu Gly Gln Leu Phe  
 165 170 175

Ser Thr Cys Asn Ala Asn Ala Leu Ser Val Leu Met Leu Gly Arg Arg  
 180 185 190

Leu Phe Ser Thr Glu Val Asp Ser Lys Ala Tyr Asp Phe Lys Gln Met  
 195 200 205

Val Val Glu Leu Met Thr Leu Ala Gly Glu Phe Asn Val Ser Asp Phe  
 210 215 220

Ile Pro Pro Leu Glu Trp Leu Asp Leu Gln Gly Val Ala Ala Lys Met  
 225 230 235 240

Lys Asn Val His Asn Arg Phe Asp Ala Phe Leu Asn Val Ile Leu Glu  
 245 250 255

Glu His Lys Leu Lys Leu Asn Asn Ser Gly His Gly Glu Gln Lys His  
 260 265 270

Met Asp Leu Leu Ser Thr Leu Ile Leu Leu Lys Asp Asp Ala Asp Ser  
 275 280 285

Glu Gly Gly Lys Leu Thr Asp Thr Glu Ile Lys Ala Leu Leu Leu Asn  
 290 295 300

Leu Phe Ser Ala Gly Thr Asp Thr Ser Ser Ser Thr Ile Glu Trp Val  
 305 310 315 320

Ile Ala Glu Leu Ile Arg Asn Pro Lys Ile Leu Ala Gln Ala Gln Arg  
 325 330 335

Glu Leu Asp Leu Val Val Gly Pro Asn Arg Leu Val Thr Asp Leu Asp

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Arg	Thr	Val	Pro	Leu	Val	Val	His	Pro	Lys	Pro	Arg	Leu	Asp	His	Glu
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Ala Thr Gly His Arg Cys Arg Arg Leu Pro Pro Gly Pro Thr Gly Trp
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Tyr Gly Pro Lys Trp Lys Leu Leu Arg Lys Leu Ser Asn Leu His Met  
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Pro Val Met Ile Ser Glu Met Leu Thr Tyr Ala Met Ala Asn Met Leu  
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Ser Gln Val Ile Leu Ser Arg Arg Val Phe Asn Lys Lys Gly Ala Lys  
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Ser Asn Glu Phe Lys Asp Met Val Val Glu Leu Met Thr Ser Ala Gly  
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<400> 27

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Asn Arg His Lys Lys Leu Pro Pro Gly Pro Arg Gly Trp Pro Ile Val  
 35 40 45

Gly Ala Leu Pro Val Leu Gly Ser Met Pro His Val Thr Leu Ser Arg  
 50 55 60

Met Ala Lys Lys Tyr Gly Pro Val Met Tyr Leu Lys Met Gly Thr Lys  
 65 70 75 80

Asn Met Val Val Ala Ser Thr Pro Ala Ala Ala Arg Ala Phe Leu Lys  
 85 90 95

Thr Leu Asp Gln Asn Phe Ser Asn Arg Pro Pro Asn Ala Gly Ala Thr  
100 105 110

His Leu Ala Tyr Asp Ser Gln Asp Met Val Phe Ala His Tyr Gly Ser  
115 120 125

Arg Trp Arg Leu Leu Arg Lys Leu Ser Asn Leu His Met Leu Gly Gly  
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Lys Ala Leu Asp Asp Trp Ala His Val Arg Glu Lys Glu Met Arg Tyr  
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Met Leu Gly Ser Met Tyr Asp Cys Ser Lys Arg Gly Glu Ala Val Val  
165 170 175

Val Ala Glu Met Leu Thr Tyr Ala Met Ala Asn Met Ile Gly Gln Val  
180 185 190

Ile Leu Ser Arg Arg Val Phe Glu Ser Lys Gly Ser Glu Ser Asn Glu  
195 200 205

Phe Lys Asp Met Val Val Glu Leu Met Thr Val Ala Gly Tyr Phe Asn  
210 215 220

Ile Gly Asp Phe Val Pro Phe Leu Ala Trp Phe Asp Leu Gln Gly Ile  
225 230 235 240

Glu Arg Glu Met Lys Ala Leu His Lys Lys Phe Asp Ala Leu Leu Thr  
245 250 255

Arg Met Ile Glu Glu His Val Ala Ser Arg Cys His Lys Gly Lys Gly  
260 265 270

Asn Tyr Asp Phe Leu Asp Val Val Met Asp His Ser Ser Glu Ser Ser  
275 280 285

Asp Gly Glu Arg Leu Thr Leu Thr Asn Val Lys Ala Leu Leu Leu Asn  
290 295 300

Leu Phe Thr Ala Gly Thr Asp Thr Ser Ser Ser Val Ile Glu Trp Ala  
305 310 315 320

Leu Ala Glu Met Leu Lys Asn Pro His Ile Thr Lys Arg Ala His Glu  
325 330 335

Glu Met Asp Gln Val Ile Gly Lys Asp Arg Arg Leu Lys Glu Ser Asp  
 340 345 350

Leu Arg Asn Leu Pro Tyr Leu Gln Ala Ile Cys Lys Glu Ala Leu Arg  
 355 360 365

Lys His Pro Ser Thr Pro Leu Asn Leu Pro Arg Val Ser Ser Gln Pro  
 370 375 380

Cys Gln Val Asn Gly Tyr Tyr Ile Pro Lys Asn Thr Arg Leu Ser Val  
 385 390 395 400

Asn Ile Trp Ala Ile Gly Arg Asp Pro Glu Val Trp Glu Asn Pro Cys  
 405 410 415

Glu Phe Asn Pro Glu Arg Phe Met Ser Gly Lys Gly Ala Lys Val Asp  
 420 425 430

Pro His Gly Asn Asp Phe Glu Leu Ile Pro Phe Gly Ala Gly Arg Arg  
 435 440 445

Val Cys Ala Gly Thr Arg Met Gly Ile Val Met Val Gln Tyr Ile Leu  
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Gly Thr Leu Val His Ser Phe Glu Trp Lys Leu Pro Asn Gly Val Val  
 465 470 475 480

Glu Leu Asn Met Glu Glu Thr Phe Gly Leu Ala Leu Gln Lys Lys Val  
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			20					25					30		

Cys Val Tyr Gln Ala Asp Tyr Pro Asp Tyr Tyr Phe Arg Ile Thr Lys  
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 Ser Glu His Met Val Asp Leu Lys Glu Lys Phe Lys Arg Met Cys Asp  
 50 55 60  
 Lys Ser Met Ile Arg Lys Arg Tyr Met His Leu Thr Glu Glu Tyr Leu  
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 Lys Glu Asn Pro Asn Leu Cys Glu Tyr Met Ala Pro Ser Leu Asp Ala  
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 Arg Gln Asp Val Val Val Val Glu Val Pro Lys Leu Gly Lys Glu Ala  
 100 105 110  
 Ala Thr Lys Ala Ile Lys Glu Trp Gly Gln Pro Lys Ser Lys Ile Thr  
 115 120 125  
 His Leu Ile Phe Cys Thr Thr Ser Gly Val Asp Met Pro Gly Ala Asp  
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 Tyr Gln Leu Thr Lys Leu Leu Gly Leu Arg Pro Ser Val Lys Arg Phe  
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 Met Met Tyr Gln Gln Gly Cys Phe Ala Gly Gly Thr Val Leu Arg Leu  
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 Ala Lys Asp Leu Ala Glu Asn Asn Lys Asp Ala Arg Val Leu Val Val  
 180 185 190  
 Cys Ser Glu Ile Thr Ala Val Thr Phe Arg Gly Pro Asn Asp Thr His  
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 Val Ile Val Gly Ser Asp Pro Asp Leu Thr Lys Glu Arg Pro Leu Phe  
 225 230 235 240  
 Glu Met Ile Ser Ala Ala Gln Thr Ile Leu Pro Asp Ser Glu Gly Ala  
 245 250 255  
 Ile Asp Gly His Leu Arg Glu Val Gly Leu Thr Phe His Leu Leu Lys  
 260 265 270

Asp Val Pro Gly Leu Ile Ser Lys Asn Ile Glu Lys Ala Leu Thr Gln  
 275 280 285

Ala Phe Ser Pro Leu Gly Ile Ser Asp Trp Asn Ser Ile Phe Trp Ile  
 290 295 300

Ala His Pro Gly Gly Pro Ala Ile Leu Asp Gln Val Glu Leu Lys Leu  
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Gly Leu Lys Glu Glu Lys Met Arg Ala Thr Arg His Val Leu Ser Glu  
 325 330 335

Tyr Gly Asn Met Ser Ser Ala Cys Val Leu Phe Ile Met Asp Glu Met  
 340 345 350

Arg Lys Lys Ser Ala Glu Glu Gly Ala Ala Thr Thr Gly Glu Gly Leu  
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Asp Trp Gly Val Leu Phe Gly Phe Gly Pro Gly Leu Thr Val Glu Thr  
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<400> 32

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Thr Thr Ile Thr His Gly Gly Ser His Arg Leu Pro Pro Gly Pro Arg  
 35 40 45

Gly Phe Pro Ile Val Gly Ala Leu Pro Leu Leu Gly Asp Met Pro His  
 50 55 60

Val Ala Leu Ala Lys Met Ala Lys Thr Tyr Gly Pro Ile Ile Tyr Leu  
65 70 75 80  
Lys Val Gly Ala Trp Gly Met Ala Val Ala Ser Thr Pro Ala Ser Ala  
85 90 95  
Arg Ala Phe Leu Lys Thr Leu Asp Thr Asn Phe Ser Asp Arg Pro Pro  
100 105 110  
Asn Ala Gly Ala Thr Ile Leu Ala Tyr Asn Ala Glu Asp Met Val Phe  
115 120 125  
Ala Arg Tyr Gly Pro Lys Trp Arg Leu Leu Arg Lys Leu Thr Asn Leu  
130 135 140  
His Met Leu Gly Asn His Ala Leu Asp Gly Trp Ala Ser Val Arg Ser  
145 150 155 160  
Ser Glu Leu Gly Tyr Met Leu His Ala Arg His Asp Ala Thr Arg His  
165 170 175  
Gly Glu Pro Val Val Leu Pro Glu Met Leu Met Tyr Ala Val Gly Asn  
180 185 190  
Met Leu Gly Gln Val Ile Leu Ser Arg Arg Ile Phe Glu Lys Lys Gly  
195 200 205  
Lys Glu Val Asn Glu Leu Lys Asp Met Val Val Glu Leu Met Thr Ser  
210 215 220  
Ala Gly Tyr Phe Asn Ile Gly Asp Phe Ile Pro Trp Leu Ala Trp Met  
225 230 235 240  
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Asp Lys Leu Ile Gly Lys Met Ile Glu Asp His Leu Lys Ser Ala His  
260 265 270  
Ile Arg Lys Ala Lys Pro Asp Leu Leu Asp Cys Leu Leu Ala Asn Arg  
275 280 285  
Asp Ser Ser Asp Ala Glu Lys Leu Thr Ser Thr Asn Val Lys Ala Leu  
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Leu Leu Asn Leu Phe Thr Ala Gly Thr Asp Thr Ser Ser Ser Ile Ile  
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Glu Trp Ala Leu Ala Glu Met Ile Lys Asn Pro Thr Ile Leu Asn Arg  
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Ala His Gln Glu Met Asp Arg Val Val Gly Arg Thr Arg Arg Leu Val  
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Glu Ser Asp Ile Pro Asn Leu Pro Tyr Leu Arg Ala Ile Cys Lys Glu  
 355 360 365

Thr Tyr Arg Lys His Pro Ser Thr Pro Leu Asn Leu Pro Arg Ile Ala  
 370 375 380

Ser Glu Pro Cys Val Val Asp Gly Tyr Tyr Ile Pro Lys Asn Thr Arg  
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Leu Ser Val Asn Ile Trp Ala Ile Gly Arg Asp Pro Asp Val Trp Glu  
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Asn Pro Leu Asp Phe Asn Pro Asp Arg Phe Leu Ser Gly Lys Asn Glu  
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Arg Ile Asp Pro Arg Gly Asn His Phe Glu Leu Ile Pro Phe Gly Ala  
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Gly Arg Arg Ile Cys Ala Gly Ala Arg Met Gly Met Val Leu Val Glu  
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Tyr Ile Leu Gly Thr Leu Val His Ala Phe Glu Trp Glu Leu Pro Ala  
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Gly Ala Gly Ala Gly Thr Ala Glu Leu Asn Met Asp His Val Phe Gly  
 485 490 495

Leu Ala Leu Gln Lys Ala Val Pro Leu Thr Ala Met Leu Thr Pro Arg  
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Leu Pro Ser His Cys Tyr Ala Pro  
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